

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200



Tu 12a

STAFF RECOMMENDATION**ON CONSISTENCY CERTIFICATION**

Consistency Certification No.	CC-94-00
Staff:	MPD-SF
File Date:	8/31/2000
3 Months:	11/30/2000
6 Months:	2/28/2001
Commission Meeting:	10/10/2000

APPLICANT:**California Dept. of Transportation (Caltrans)****PROJECT
LOCATION:**

Between Highway 1 near Shamrock Ranch (approximately one mile south of Linda Mar Avenue in Pacifica) to the north, and Highway 1 south of Devil's Slide, San Mateo County (Exhibits 1-2)

**PROJECT
DESCRIPTION:**

Construction of two single-bore, ¾ mile long tunnels (one in each direction) underneath San Pedro Mountain, with appurtenant approaches to the north and south connecting the tunnels with existing Highway 1 (Exhibits 3-5)

**SUBSTANTIVE FILE
DOCUMENTS:**

See page 32.

EXECUTIVE SUMMARY

On November 5, 1996, the voters of San Mateo County passed "Measure T," the Devil's Slide Tunnel Initiative, which modified the San Mateo County Local Coastal Program (LCP) to substitute a tunnel alternative at Devil's Slide in place of a more inland bypass of Highway 1, as a permanent solution to the problems caused by frequent closures of Highway 1 from continuing rock and mud slides at Devil's Slide. On January 9, 1997, the Commission certified

the measure as San Mateo County LCP Amendment No. 1-96, finding the Devil's Slide Tunnel Initiative consistent with the Coastal Act and incorporating it into the Land Use Plan (LUP) portion of the County's LCP.

Federal Highway Administration (FHWA) procedures require Commission concurrence in a consistency certification prior to finalization of an Environmental Impact Statement (EIS) and issuance of a record of decision (ROD). (Consistency review is also necessitated by the fact that the project requires a permit from the U.S. Army Corps of Engineers.) Accordingly, Caltrans has now submitted to the Commission for its review a consistency certification for the Devil's Slide tunnel project. Yet another (third) Commission review may also occur because, once the environmental documents are finalized, Caltrans will apply to San Mateo County for a coastal development permit, and that permit would be appealable to the Commission. Given the historic controversy surrounding Devil's Slide issues, such an appeal appears likely.

In these situations, the Commission performs its federal consistency review in a "phased" manner. The "phase" of the Commission's review that is before it at the present time is for the limited purpose of assuring that the fundamental concept, goals and objectives of the project are consistent with the applicable California Coastal Management Program (CCMP)/Coastal Act policies. (The standard of review for the subsequent coastal development permit will be the policies of the San Mateo County LCP.) More detailed review at this time is precluded by the fact that final design, engineering, and final mitigation measures and monitoring plans have not been fully developed, although they have been substantially more fully developed than when the Commission reviewed the Measure T LCP amendment.

As adopted by the electorate of San Mateo County Measure T provided for:

... construction of a tunnel for motorized vehicles only behind Devil's Slide through San Pedro Mountain. The tunnel design shall be consistent with (a) Coastal Act limits restricting Route 1 to a two-lane scenic highway; and (b) minimum state and federal tunnel standards. A separate trail for pedestrians and bicycles shall be provided outside the tunnel as specified in Policy 2.56 a.

When it reviewed the LCP amendment to incorporate Measure T into the LCP, the Commission found the tunnel, as described in Measure T, consistent with the applicable Coastal Act policies. Specifically, the Commission found the tunnel consistent with the requirement of Section 30254 of the Coastal Act to maintain Highway 1 in rural areas as a two-lane scenic highway. The Commission acknowledged that the tunnel raised concerns over potential adverse effects on wetlands environmentally sensitive habitat, including: (1) direct displacement of wetlands; (2) potential elimination or degradation of habitat of endangered species habitat; and (3) sedimentation into environmentally sensitive wetland habitat. The Commission determined that while a tunnel could be found environmentally preferable to the far more environmentally damaging Devil's Slide bypass through McNee Ranch State Park, design details, alternatives, and mitigation measures would need to be refined, and the ultimate

tunnel design and alignment would need to constitute the least environmentally damaging feasible alternative.

Caltrans has refined the design and alignment sufficient to enable such a determination. Caltrans has minimized wetland fill and endangered species impacts by selecting the north portal bridge alternative which eliminates the need for fill of the wetland/agricultural pond on Shamrock Ranch that contains endangered red-legged frog habitat. Caltrans has further limited the south portal wetland impacts to a degree that justifies a determination that all feasible wetland avoidance measures have been taken, that unavoidable impacts will be mitigated to the maximum extent feasible, and that, therefore, the project represents the least environmentally damaging feasible alternative for the project.

In reviewing Measure T the Commission acknowledged that the wetland fill for the tunnel would not be an allowable use under Section 30233(a) of the Coastal Act. The Commission determined that a conflict existed between competing Coastal Act policies which, on the one hand, promote public access, and which, on the other, seek to prevent or minimize wetland fill and protect wildlife habitat. The Commission noted the "traffic nightmare" that occurs when the existing Highway 1 at Devil's Slide is closed, which greatly impedes the public's ability to achieve access to this coastal area (and also has a severe adverse effect on the heavily tourist-dependent economy of the San Mateo County MidCoastside). The Commission also noted that the previously-approved "Martini Creek" Devil's Slide bypass was far more environmentally damaging than the tunnel, not only to wetlands and environmentally sensitive habitat, but to public access and recreation, scenic public views, and the overall character of the San Mateo County Mid-Coastside. That bypass included several orders of magnitude more wetland fill than the proposed tunnel (see page 20); the Commission further noted that:

... the tunnel called for by the proposed amendment would have far less impact on the State Park than the Martini Creek Bypass called for by the existing LUP policies to be deleted as part of the amendment. The bypass would bisect the park and would result in significant adverse effects on the quality of recreational experience that can occur in the park.

Thus, the Commission concluded that any tunnel to be built based on Measure T would be far more protective of coastal resources than the Martini Creek bypass proposal. Based on the conflict resolution provision of the Coastal Act (Section 30007.5), the Commission concluded that the tunnel:

...would promote public access and recreation along the coast, as well as implement the public access and recreation policies of Sections 30210, 30211, 30212, 30212.5, 30213, 30252 and 30254 of the Coastal Act. These benefits will be lost if the project is not approved.

Balanced against these beneficial aspects of the project is the competing fact that the project also will fill wetlands and environmentally sensitive habitat for a use that is not allowed by either Sections 30233 and 30240 of the Coastal Act. However, the impacts

of this fill can be mitigated by a wetland replacement and environmentally sensitive habitat restoration program that will be required through the coastal development permit that must be obtained for the project, pursuant to the wetland fill and habitat protection policies of the certified San Mateo County LCP. The Commission also notes that the placement of the fill and the encroachment into environmentally sensitive habitat is the least environmentally damaging feasible alternative.

For these reasons the Commission finds, pursuant to Sections 30007.5 and 30200 of the Coastal Act, that on balance it is more protective of coastal resources to resolve this conflict by approving the project and allowing the proposed wetland fill and encroachment into environmentally sensitive habitat.

Based on Caltrans' incorporation into the project design of 1) a number of features intended to avoid wetland impacts, including alignment refinements and the bridging rather than filling of the more environmentally sensitive wetlands at the north portal, and 2) further mitigation measures (including wetland mitigation (on-site restoration and offsite mitigation as described on pages 14-18), restoring trail crossings, water quality measures, and revegetation of disturbed slopes), the Commission again concludes that, while inconsistent with the allowable use test of Section 30233 (a) of the Coastal Act, the tunnel is consistent with the Coastal Act based on the conflict resolution section (Section 30007.5) of the Coastal Act.

The tunnel is also consistent with the public access and recreation (Sections 30210-30214), view protection (Section 30251), public works (Section 30254), and water quality (Section 30231) policies of the Coastal Act. These findings are contingent on the mitigation and monitoring measures Caltrans has committed to. The detailed designs for these measures will be provided during the subsequent coastal development permit application to San Mateo County (and, possibly, on appeal to the Commission).

The Commission also has the ability to independently "re-open" its federal consistency review of the project if the monitoring and mitigation measures are inadequate.

STAFF SUMMARY AND RECOMMENDATION

I. Project Description. The California Dept. of Transportation (Caltrans) has submitted a consistency certification for a 1,219 meter (m) (4,000-foot) long, double bore tunnel with one lane in each direction, in northern San Mateo County (Exhibits 1-5). The north approach road is approximately 457 m (1,500 feet) long and includes 320 meter (1,050 feet) long parallel bridges (Exhibit 7). The south approach road is 305 m (1,000 feet) long (Exhibit 8). Proceeding south from Pacifica, the alignment departs from existing Highway 1 along a 7% uphill grade, crosses the valley at Shamrock Ranch (which is located approximately one mile south of Linda Mar Avenue in Pacifica), passes through a small ravine, enters a tunnel through San Pedro Mountain, and exits the tunnel just south of the Devil's Slide area where it rejoins

the existing highway. The tunnel is basically flat with a 2% grade. Approximately 1,600 meters (5,250 feet) of the existing road will be abandoned as a result of the realignment, with cul-de-sacs proposed at both ends of the abandoned highway.

The bridge structures will be approximately 36.5 meters (120 feet) above the valley floor of Shamrock Ranch. In addition to end abutments, intermediate piers would be required on either side of the valley.

Each tunnel would be 30 feet wide, which would include 4 foot interior walkways on both sides, a 12 foot lane, and an 8 foot and 2 foot shoulder (Exhibit 5). Approximately 763,000 cu. meters (1 million cu. yds. of material will be generated by tunnel excavation. Most of the material (an estimated 574,000 cubic meters would be placed at the south disposal site near the South Portal area (Exhibits 3 & 9); the remainder (up to 150,000 cubic meters [see footnote, page 23]) would be disposed off-site. The exact routes and locations of the off-site disposal sites are currently under consideration; Caltrans indicates that there are several sites near Highway 92 or in Pacifica that could be used.

In order to accommodate bicyclists, which are allowed on existing Highway 1, Caltrans consulted with bicycle groups and San Mateo County. The result of this consultation was a decision to place informational/directional signs directing bicyclists to use the existing Highway rather than the tunnel. However, Caltrans notes that in the absence of any ban or restrictions (which would need to be initiated by local government), some bicyclists may still choose to ride with vehicular traffic through the tunnel. Upon completion of the tunnel construction, Caltrans will relinquish the section of the existing Highway 1 right-of-way to San Mateo County to own and manage.

The project also includes tunnel infrastructure systems needed for safety and operations. These include tunnel control, tunnel surveillance, traffic control, communications, emergency evacuation, environmental monitoring and tunnel maintenance. A Tunnel Operations and Maintenance Center (OMC) would be located approximately 549 meters (1800 feet) south of the tunnel (Exhibits 3 & 4) and would include a control room where the tunnel control computers would be housed.

II. Background/Project Purpose & History. Highway 1 at Devil's Slide is geologically unstable. Since the highway was built in 1937, Caltrans has sought various permanent solutions to the problems posed by the slide. Despite drainage improvements, pavement reinforcement and rock anchors, Highway 1 continues to experience difficulties and closures due to landslides and roadway subsidence, causing tremendous inconvenience to coastal residents, severe economic hardships for Coastside businesses and families, and adverse effects on public access to the many recreation opportunities in the Mid-Coast region. When Highway 1 is closed, travelers are forced to detour to Highway 92 to reach the coast (Exhibit 16), and with Highway 92's limited capacity and mountainous terrain, the result is extreme traffic congestion for the entire region. The 1986 Devil's Slide FEIS listed the numerous historic road closures (Exhibit 15); similar closures have continued to occur since that document was

written. One of the longest lasting road closures in the area occurred in 1995, lasted 158 days (from 1/22/95 thru 6/30/95), and cost \$2,983,000 to repair.

In the early 1970's, when NEPA (the National Environmental Policy Act) and CEQA (the California Environmental Quality Act) first became law, the Sierra Club and several other organizations filed a lawsuit over Caltrans' proposal to construct a bypass through McNee Ranch State Park, and the U.S. District Court enjoined further construction pending preparation of an Environmental Impact Report.

The Coastal Commission certified San Mateo County's Local Coastal Program (LCP) in 1981. The LCP recognized the geologic problems at Devil's Slide and provided for a 2-lane bypass with uphill passing lanes along a "preferred alignment" called the "Martini Creek alignment" (Exhibit 2). Because the bypass was not being actively pursued at the time of LCP certification, it was not a subject of major controversy during the Commission's public hearings on the LCP. However closures of the existing road continued, with a total of 22 closures occurring between 1973 and 1983. Public sentiment for a solution intensified as a result of 238 days of closure in 1980, and a 3 month closure caused by the winter storms of 1982-83.

In response, in 1983 Caltrans resumed preparation of its bypass EIR for a longer alignment than the 4.5 mile long Martini Creek alignment; this alternative was called the "Adopted" alignment and was a 6.8 mile long, predominantly 4-lane bypass, traversing past Martini Creek through Montara and rejoining Highway 1 near the Half Moon Bay airport. Both the "Adopted" and "Martini Creek" alignments bisected McNee Ranch State Park, but only the Adopted alignment necessitated an LCP amendment. The County submitted to the Coastal Commission LCP amendments to authorize this bypass, but in 1985 the Commission twice denied these LCP amendments (on June 27, 1985, and September 25, 1985).

Caltrans then abandoned the "Adopted" alignment and submitted a consistency certification to the Commission for a 4.5 mile long, 3-lane bypass along the Martini Creek alignment (up to 100 ft. wide, with continuous uphill passing lanes in each direction, 30 ft. wide vehicle recovery areas and 49 ft. wide vehicle retention lanes, and with 5.9 million cu. yds of grading). On February 11, 1986, the Commission concurred with Caltrans' consistency certification for this bypass. However, litigation ensued and controversy remained. As a result, Caltrans never submitted to the County a coastal development permit application for this bypass.

In the winter of 1995-1996, landslide activity again closed the Highway at Devil's Slide for several months, and public pressure again mounted for a solution to the Devil Slide problem. Although it had not been seriously studied previously as a potential feasible solution, at about this time proponents for building a tunnel as a permanent solution to Devil's Slide presented to County and state officials information supporting the viability of a tunnel. Thus, in 1996, in response to requests from local agencies and the public, Caltrans hired an independent consulting firm to conduct a tunnel feasibility study. Based upon the results of "The Devil's Slide Tunnel Study" (Woodward-Clyde Consultants, 1996), the Federal Highway Administration (FHWA) and Caltrans determined that a tunnel alternative would be a

reasonable alternative that should be fully evaluated in the environmental process. Caltrans and FHWA determined that a new supplement to the 1986 FEIS was necessary in order to provide new information relevant to the tunnel alternative. On March 19, 1999, the Draft Second Supplemental Environmental Impact Statement (DSSEIS) for the proposed Devil's Slide Improvement Project was circulated for public review.

On November 5, 1996, the voters of San Mateo County passed the Devil's Slide Tunnel Initiative known as Measure T. Passage of Measure T triggered initiation of the process to amend San Mateo County's Local Coastal Plan (LCP) to provide a tunnel for motorized vehicles behind Devil's Slide through San Pedro Mountain, and to delete references to a two-lane highway bypass along the Martini Creek alignment. The Initiative requires that the tunnel be designed consistent with restricting Highway 1 to a two-lane scenic highway using minimum state and federal tunnel standards, and that a separate trail for pedestrians and bicycles be provided outside the tunnel. Measure T also requires voter approval of any other alternative to the tunnel, except repair or reconstruction of the existing highway.

On January 9, 1997, the Commission certified this LCP amendment, finding the tunnel the least environmentally damaging alternative for providing a permanent solution to the road closure problems at Devil's Slide, and finding that while the project did not qualify as an allowable use pursuant to Section 30233(a), the project presented a conflict between Coastal Act policies addressing, on the one hand, protection of wetland resources, and, on the other, promotion of public access. Under Section 30007.5 (the conflict resolution section of the Coastal Act), the Commission concluded that it would be more protective of coastal resources to resolve this conflict by approving the project and allowing wetland fill and encroachment near environmentally sensitive habitat areas (with avoidance and mitigation measures).

III. Phased Review. Caltrans seeks this initial Commission concurrence in order to secure federal funding for the project. In this phase, the Commission is reviewing the concept, goals and objectives of the proposed project. At this stage in the review process, the information submitted to date does not include final plans or detailed mitigation and monitoring plans. Caltrans has not made final design decisions, and several project elements have not been finalized, including: (1) final detailed habitat configurations; (2) the biological, water quality, and other monitoring plans; (3) access and recreation measures (e.g., a truck traffic management plan, and trail crossing relocations where existing trails would be bisected by the tunnel approaches); and (4) final bridge and approach road designs.

Thus, the consistency certification submitted contains only a conceptual plan and conceptual mitigation measures. To the extent mitigation measures have been committed to and described, as discussed in the findings below, the Commission is able to find the project consistent with the applicable Coastal Act policies. Detailed design will follow and be the subject of a subsequent coastal development permit application submitted by Caltrans to San Mateo County (and, possibly, to the Coastal Commission on appeal).

Moreover, any changes to the project design or mitigation commitments raising Coastal Act policy concerns not previously identified could independently trigger additional federal

consistency review under the provisions of Section 930.66(b) and/or Section 930.100(b) of the federal consistency regulations (15 CFR Part 930), which provide for re-review based on "changed circumstances" of federally permitted and federally funded activities in which the Commission has previously concurred (i.e., based on a determination that the project is having coastal zone effects that are substantially different than originally proposed and, as a result, the project is no longer consistent with the applicable coastal management program policies).

IV. Status of Local Coastal Program. The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the LCP has been certified by the Commission and incorporated into the California Coastal Management Program (CCMP), it can provide guidance in applying Chapter 3 policies in light of local circumstances. If the LCP has not been incorporated into the CCMP, it cannot be used to guide the Commission's decision, but it can be used as background information. The San Mateo County LCP has been incorporated into the CCMP.

V. Applicant's Consistency Certification. Caltrans has certified that the project is consistent with the California Coastal Management Program.

VI. Staff Recommendation. The staff recommends that the Commission adopt the following motion:

MOTION: **I move that the Commission concur with consistency certification CD-94-00 that the project described therein is consistent with the enforceable policies of the California Coastal Management Program (CCMP).**

STAFF RECOMMENDATION:

*Staff recommends a **YES** vote on the motion. Passage of this motion will result in a concurrence with the certification and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.*

RESOLUTION TO AGREE WITH CONSISTENCY CERTIFICATION:

The Commission hereby concurs with the consistency certification by Caltrans, on the grounds that the project described therein is consistent with the enforceable policies of the CCMP.

VII. Findings and Declarations:

The Commission finds and declares as follows:

A. Wetlands and Environmentally Sensitive Habitat.

1. Coastal Act Policies. The Coastal Act provides:

30233(a): The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.

(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels

(3) In wetland areas only, entrance channels for new or expanded boating facilities

(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

(b) Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for such purposes to appropriate beaches or into suitable long shore current systems.

30240. (a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.

(b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.

2. Wetland Impacts. Caltrans has refined the tunnel design to avoid the most significant wetland fill at the north portal area, by bridging rather than filling the valley underneath the north approach roadbed. Nevertheless, the project still entails some degree of temporary and permanent fill in wetlands as defined under the Coastal Act, primarily at the disposal area and south portal approach, and therefore triggers the 3-part test under Section 30233(a) for projects involving wetland fill: (a) the allowable use test; (b) the alternatives test; and (c) the mitigation test.

(a) Allowable Use Test. Under the first of these tests, a project must qualify as one of the eight stated uses allowed under Section 30233(a). The only potentially applicable allowable use is Section 30233(a)(5), which authorizes fill for “*Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.*” In past cases the Commission has considered the circumstances under which fill associated with the expansion of an existing “roadbed or bridge” might be allowed under Section 30233(a)(5). Specifically, the Commission has considered the expansion of an existing road or bridge as an “incidental public service purpose” when no other alternative exists and the expansion is necessary to maintain existing traffic capacity.

The Court of Appeal has recognized this definition of incidental public service as a permissible interpretation of the Coastal Act. In the case of *Bolsa Chica Land Trust et al., v. The Superior Court of San Diego County* (1999) 71 Cal.App.4th 493, 517, the court found that:

... we accept Commission's interpretation of sections 30233 and 30240... In particular we note that under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions. Roadway expansions are permitted only when no other alternative exists and the expansion is necessary to maintain existing traffic capacity.

Thus, fill for the expansion of existing roadways and bridges may be considered to be an “incidental public service purpose” only if: (1) the expansion is limited; and (2) the expansion is necessary to maintain existing traffic capacity. The proposed project, a 2-lane tunnel replacing a failing 2-lane existing highway, qualifies as a project designed to maintain existing traffic capacity. However, it is less clear whether the project qualifies as a limited expansion of an *existing* road. The Commission has generally used this definition for activities

maintaining an existing road along its same alignment. Since the proposed tunnel essentially constitutes a new alignment, it therefore may not qualify as an expansion of an existing road. Furthermore, in approving the "Measure T" LCP amendment, the Commission has already determined that the proposed roadway fill is neither an incidental public service, nor an allowable use.¹ The Commission therefore concludes at this time that the project does not constitute an allowable use under Section 30233(a).

(b) Alternatives. The Commission also concluded in reviewing Measure T that construction of a tunnel, as called for by the proposed LCP amendment, is the least environmentally damaging feasible alternative for providing a permanent solution to the sliding and road closure problems at Devil's Slide consistent with Section 30233 of the Coastal Act. The issue before the Commission at this point is whether this conclusion is still supportable, given the more detailed design, field work, and alternatives analysis performed by Caltrans at this stage in the process.

The primary alternatives analyzed by Caltrans to date have been: (1) the no project alternative; (2) various tunnel designs studied in the Devil's Slide Tunnel Study" (Woodward-Clyde Consultants, 1996); (3) in greater detail, a 30 ft. wide versus a 36 ft. tunnel design comparison (see cross sections, Exhibit 6); (4) two alternatives for the approaching the north portal across Shamrock Ranch (a bridge alternative and a fill alternative); and (5) alternatives at the south portal involving varying degrees of wetland fill. Caltrans states:

The feasibility study prepared for the proposed tunnel considered six design variations for the project: three single bore designs and three double bore designs. The designs differ in width and the option to either bridge the north portal approach road or fill it. All of the variations considered envision creating a disposal area at a site located just south of the south portal.

Caltrans determined that the 30 ft. wide tunnels would be less environmentally damaging than the 36 ft. wide alternative. Caltrans also determined that, because it would avoid direct loss of federally listed threatened species habitat (red legged frogs in the north pond on Shamrock Ranch), the bridge design alternative for the north portal approach road would be environmentally less damaging (See options A and B in the chart below [Option B is the proposed alternative]). Caltrans states:

¹ However, the Commission also found that, for purposes of PRC Section 30007.5 (resolving conflicts among competing Coastal Act policies), the project presented a conflict between competing policies of the Coastal Act, in that it would promote and encourage public access and recreation along the coast, as well as implement the public access and recreation policies of the Coastal Act. The Commission therefore found that balance, it was more protective of coastal resources to resolve this conflict by approving the proposed project and allowing the wetland fill and encroachment into environmentally sensitive habitat areas.

Alternative "A" Fill Option

This alternative was considered in the tunnel feasibility report for several reasons. By filling the gap between the existing highway with excavated material, the total amount of excess material could be split between the south disposal site and the north portal approach. Unfortunately, this design would have resulted in potential impacts to the Shamrock Ranch north pond, and a direct loss of portions of it's adjacent uplands and drainages. As a result of the NEPA/404 process and informal consultation between Caltrans and USFWS biologists, the fill option was rejected.

North Portal Alternatives

Wetlands Permanently Affected	(A.) Fill option	(B.) Bridge Option	(C.) Bridge Option w/South Portal Bridge & Retaining Wall
Shamrock Ranch-/North Pond	43,000 sq ft.	0	0
Shamrock Ranch-North Portal	14,310 sq ft.	14,310 sq ft.	14,310 sq ft.
South Portal Drainage Area	6,190 sq ft.	6,190 sq ft.	6,190 sq ft.
Fill Disposal Drainage Area	43,260	43,260	0
Total Sq ft.	106,760	63,760	20,500
Total Acres	2.45	1.46	.47
Total Sq meters	9,918	5,923	1,904
Total Hectare	.99	.59	.19
Option "C" Additional Costs			
Bridge over wetland @ South Portal	na	na	\$1,500,000
Retaining Wall @ Route 1-East Side			\$50,000
Option "B" Additional Costs			
Bridge over North Pond	na	\$15-\$17 million	\$15-\$17 million
Off Site Disposal Costs			
	na	\$1.5 million	\$2.5 million
Total	na	\$16.5-\$18.5 million	\$19.5-\$21.5 million

Concerning the proposed disposal in the south portal area, Caltrans states:

This area consists of a depressed area between a section of highway 1 built on a raised highway embankment and the adjoining hillside. The roadway embankment impounds a natural drainage which results in intermittent ponding of runoff water to create a seasonal, low quality wetland².

In analyzing the disposal options for the tunnel, Caltrans states:

In determining the feasibility of the options described in table above, Caltrans considered how the project would be accomplished in a successful manner within a

² California Coastal Commission Staff Report No. 1-96, pp. 11 (1997)

reasonable amount of time as well as economic, environmental, social, and technological factors. This included:

- *The location of depressions at the project site available for fill*
- *Access to alternative disposal sites*
- *Locational characteristics such as the distance from the project and topography*
- *Aesthetic and visual impacts*
- *Impacts to the adjacent community and it's residents*
- *Development of access roads*
- *Traffic mitigation, congestion and disposal routes*
- *Noise-public safety-dust and erosion control*
- *Economic viability of alternative sites*
- *Design options that avoid wetlands and sensitive habitat*

Consideration of alternative sites within the project area for excavated material is not available at this point in the design stage. Access roads that would enable Caltrans to use alternative sites would require additional review of the USFWS to determine potential impacts to listed species. The topography of the project site is also unsuitable except for the areas located at the south portal. Economic considerations of off-site hauling would add additional costs to the project based on the options identified in the north portal alternatives (chart version) but this is considered the least environmentally damaging alternative. Bridge option "B", which would include off-site hauling of an estimated 150,000 cubic meters of excess material would generate 15,000 truck trips over a nineteen month period and cost an additional \$1.5 million dollars is the preferred option for providing a solution to the disposal of excess material. Option "C" would produce an estimated 250,000 cubic meters of excess material, generate an estimated 25,000 truck trips and cost an additional \$3 million dollars.

Using option "B", with a trip generation rate of 15,000 truck trips, off site hauling per day could average between 50 to 100 trips depending on the stage of construction. Initially it is expected that a greater percentage of material will be hauled either to the fill disposal drainage area near the south portal or to the selected off-site location than during the later stages of the project. The tunnel excavation, earthwork and south rock cut are planned in 352 working days (1 year 7 months). If all of the off-site disposal occurs during this time period, average truck trip generation would be 42 trucks per day (tpd). Higher trip generation could occur depending on the location of the disposal site and loading considerations at the excavation areas.

The "No Project" alternative could mean taking no action, or possibly intensifying efforts to dewater the landslide at Devil's Slide. Caltrans performed a "Dewatering Feasibility Study," which concluded:

... that the groundwater regime within the study area is complex, and dewatering would be extremely difficult. The slide mass has a low to very low hydraulic

conductivity and removing groundwater from the slide mass is expected to be difficult and have limited lateral impact on the water table. This limited ability to remove groundwater from Devil's Slide supports the conclusion that dewatering this slide area is not feasible. Dewatering does not meet the purpose and need and therefore is no longer considered as a viable project alternative.

The Commission finds that Caltrans has examined feasible alternatives and proposes the least environmentally damaging feasible alternative. Where wetlands in the project area contain environmentally sensitive habitat (the red-legged frog ponds on Shamrock Ranch and, possibly, the Uphill Seasonal Ponding Depression in the Fill Disposal Area), Caltrans has modified the project to avoid adverse effects. Given the complex topography and geologic constraints in the area, feasible alternatives that would further reduce adverse impacts are either not available or are more environmentally damaging. The no project alternative would entail significant adverse effects on public access and recreation. The Commission therefore concludes that Caltrans has implemented design modifications that avoid significant wetland and environmentally sensitive habitat impacts, that the proposed project represents the least environmentally damaging feasible alternative, and that the project is therefore consistent with the alternatives test of Section 30233(a) of the Coastal Act.

(c) **Mitigation.** Caltrans has carefully delineated wetlands based on both Coastal Act and the U.S. Army Corps of Engineers definition, noting that the Coastal Act definition can be more inclusive than that contained in the Corps' manual. Using **Corps** manual definitions, Caltrans determined the overall project would involve approximately **0.1 acres of wetland fill and 0.2 acres of riparian habitat fill**. Using the broader **Coastal Act definition**,³ Caltrans determined the overall wetland fill would be **1.46 acres of permanent wetland fill** (which will be mitigated off-site) and **0.52 acres of temporary wetland fill** (which will be restored on-site). The wetland impacts occur in three general locations: the north portal/Shamrock Ranch, the south portal, and the tunnel spoils disposal site. Caltrans analyzes the impacts and accompanying mitigation measures on an area-by-area approach, is summarized in the following discussion.

The **north portal drainage area** and portions of Shamrock Ranch include five separate wetlands: a seasonal depression and strip of wetlands at the access road's north entrance, an earthen bank and pond (north) at the bridge structure, strips of wetlands that parallel the construction access road, a seasonal pond, and the south pond (earthen bank) (and adjacent small wetland area (Exhibit 11). The western end of Shamrock Ranch is predominately agricultural, including horse grazing as part of a private ranching operation. These uses have greatly altered the natural environment and disturbed native vegetation. Earthen dams were installed within two different drainage locations at Shamrock Ranch which created the North Pond and the South Pond. These Shamrock Ranch ponds date from the 1950's when the

³ This definition is consistent with the U.S. Fish and Wildlife Service's wetland classification system entitled "Classification of Wetlands and Deep-Water Habitats of the United States," Cowardin, et al., December 1979, and with the definition used by the California Dept. of Fish and Game.

existing drainages were impounded to form stock or irrigation ponds. In spite of the agricultural land uses, wetlands have evolved over time and now surround the perimeter of the ponds. These wetlands function as habitat for wildlife and contain a high diversity of vegetation including willow (*Salix spp.*), tule (*Scirpus californicus*), rush (*Juncus spp.*), and blackberry (*Rumex vitifolius*). The ponds also provide habitat for the federally threatened wildlife species, the California red-legged frog (*Rana aurora draytonii*), which uses the area for breeding, feeding, and refuge habitat.

Through its bridge design spanning the valley on Shamrock Ranch, Caltrans has been able to avoid the most significant wetlands (i.e., those containing federally listed threatened species). However the north portal bridge abutment would still result in Coastal Act-defined (but not Army Corps-defined) wetland fill of approximately **0.33 acres of permanent fill**. Additional temporary wetland impacts would occur adjacent to this fill and in a few scattered locations on Shamrock Ranch for the temporary construction access roads and restoration of the earthen dam at the north portal south pond. Total temporary impacts in the north portal area would be approximately 0.5 acres.

The wetlands in the south portal drainage area (where the tunnel approach returns to Highway 1 and the fill disposal area (where tunnel spoils would be placed) are less environmentally sensitive than the north portal wetlands, are predominantly manmade, and contain significant amounts of exotic vegetation (Exhibits 9 & 10). The **south portal drainage area** wetland (Exhibit 10) consists of a seasonal ponding depression which carries water from the upper watershed to the bottom of the hill and to an above ground riser. Runoff flows from this standpipe under Route 1 and to the Pacific Ocean. The seasonal depression on the east side of Route 1 has formed due to a change in the topography and hydrologic regime after an above ground culvert riser was built to trap sediment and protect the culvert under the existing Route 1 roadway. The culvert riser allows water to collect in a depressional area under the inlet.

Wetland fill in this area total **0.14 acres**. Caltrans states that a large rock cut proposed at the south portal area is necessary to align the highway and provide adequate sight distance and radius curve. A smaller rock cut will top the south portal. The south portal location was selected at a rock nose between Route 1 and a small drainage channel just south of Devil's Slide. This location was selected because it provides acceptable side cover between the tunnel and the cliff face east of Route 1, adequate space between tunnels for the double bore configuration, avoids the environmentally sensitive stream channel to the east, and provides adequate depth of good quality rock above the tunnel portal. Caltrans further notes:

This seasonal ponding depression is similar to the depression described at the fill disposal drainage area [described below]. Prior to construction of route 1, runoff from this drainage flowed directly into the ocean. The new roadway blocked off the canyon, and a culvert was placed under Route 1 to allow continued drainage to the ocean. Sometime in the 1970's Caltrans determined that there were problems with the drainage due to blockage at the culvert. To resolve this, a 10 foot high by 4 foot wide

standpipe (aboveground riser) was installed to allow slower drainage of the canyon via slits in the standpipe.

Eventually, the standpipe plugged at lower levels but continued to be effective because of the slits at higher elevations of the standpipe. As a result of this filling, favorable growth conditions for wetland species became available. Unexpectedly, the standpipe trapped siltation which in turn allowed wetland plant species to become established. If Caltrans had maintained the standpipe by removing the surrounding fill, there would likely be no wetland. Sediment continues to build around the above ground riser during times of peak runoff after heavy rainfall. During normal or above normal rainy seasons, water ponds within the depression for at least two weeks. Since the water in this depression dries early in the spring, it is not good habitat for amphibians. No threatened or endangered species have been found at the site.

The affected wetlands at the **fill disposal site**, the area proposed for excavation of the over ½ million cubic meters of material from the tunnel construction (Exhibit 9), are also manmade. These wetlands consist of (1) an old roadcut for an abandoned county road alignment (which continues to erode and affect the existing topography in such a way that additional wetlands have grown within the abandoned roadway, although its habitat value is low and the hydrophytic vegetation found in the seasonal depression does not form a dense cover); and (2) a downhill seasonal ponding depression that, like the south portal drainage area wetland, developed wetland characteristics due to manmade drainage improvements. Wetland fill in this area total almost **1 acre** (43,260 sq ft., or 0.99 acres), 90% of which would be in the downhill depression area and the other 10% in the old county roadway.

Thus, **total permanent wetland impacts** from the project total **1.46 acres** of wetland impacts, most of which constitute Caltrans-created (i.e., manmade) wetlands with little habitat value. Temporary construction-related impacts would add an additional 0.52 acres of impact. Mitigation measures consist of offsite mitigation for the permanent impacts and on-site restoration for the temporary impacts. Additional wetland avoidance measures developed in consultation with the U.S. Fish and Wildlife Service to protect the federally listed threatened red-legged frog, which resides in the north and south ponds on Shamrock Ranch, are discussed in the following section of this report. Caltrans describes the wetland avoidance and mitigation measures, as follows:

On-Site Mitigation

[As discussed in the following section of this report], *To avoid impacts to the north pond and associated Coastal Commission wetlands, a bridge will be constructed instead of filling the large area across the upper end of Shamrock Ranch. [This measure avoids] ... permanent impacts to wetlands totaling 43,000 square feet and adjacent buffer zones. A segmented balanced cantilever method will be used to construct the bridge, ... [thereby avoiding construction impacts to these wetlands].*

Off-Site Mitigation

Off-site mitigation to compensate for temporary and permanent impacts to wetlands, sensitive habitat areas and buffer zones will involve the restoration and enhancement of a filled-wetland, south of the project on Route 1 across from the Charthouse Restaurant [Exhibit 12]. As soon as Caltrans is granted permission to enter the property, a preliminary wetland delineation will be made at the site in order to determine the existing conditions of the wetlands. The area is approximately 23,212 square meters (249,761 square ft.) Replacement ratios recommended by the Commission will consider the habitat value and type, and there will be no permanent net loss of wetland habitat as a result of the project.

The existing land use of the property, which the mitigation site is a portion of, is agricultural. Row crops are grown on the north side of the mitigation site. Residential land uses are located on the south side of the site. Open space and recreational land uses, associated with the Pacific Ocean, are found to the west. The existing Route 1 roadway separates the mitigation site from the open space and recreational land uses.

The mitigation site has been disturbed in the past by agricultural activities and the placement of fill. Past plowing and grading at the mitigation site has disrupted the northern drainage. It appears that the past disruption of this drainage resulted in an increase in the size of the wetlands found here. This drainage currently flows under Route 1 and ultimately into the Pacific Ocean.

Past placement of fill in a portion of the mitigation site resulted in a decrease of the total wetlands. The mitigation option for this site would be to eliminate the fill and enhance the total wetland area. The existing fill area is an upland area that does not contain hydrophytic vegetation.

The mitigation site also includes an undisturbed drainage in the southern portion of the property. Hydrophytic vegetation is found in association with both drainages. Willow dominates this undisturbed drainage channel as it parallels Route 1 before it crosses under the roadway. A berm has been installed on the eastern boundary of the mitigation site, and a fence has been constructed on top of the berm. It does not appear that the mitigation site is currently used for agricultural purposes due to the wetlands that have evolved over time.

A map showing the location and boundaries of the off-site mitigation area is ... [shown in Exhibit 12].

This mitigation plan included in Caltrans' consistency certification is still conceptual at this point. It incorporates acceptable mitigation ratio commitments and locations, which were developed in consultation with CDFG and FWS. However, prior to final Commission authorization these will need to be supplemented with detailed mitigation and monitoring plans. The Commission finds that the commitments provided to date enable the Commission

to find, at this time, that the project satisfies the mitigation test of Section 30233(a) of the Coastal Act. Detailed design will follow and be the subject of the subsequent coastal development permit review stage (and, if needed, further federal consistency review as explained on pages 7-8).

(d) Environmentally Sensitive Habitat. As noted above, Caltrans has refined the tunnel design and incorporated avoidance, monitoring, and enhancement measures to avoid filling and adversely affecting federally listed threatened species habitat (red legged frogs in the ponds on Shamrock Ranch). These measures were developed in consultation with the U.S. Fish and Wildlife Service to protect red-legged frog habitat, which resides in the north and south ponds on Shamrock Ranch. Caltrans describes the wetland avoidance and mitigation measures, as follows:

An environmentally sensitive area (ESA) was developed in consultation with the USFWS biologists to protect red-legged frog habitat. The ESA will be off-limits to construction personnel, vehicles, construction materials, falsework or other ground disturbances.

On-Site Mitigation

To avoid impacts to the north pond and associated Coastal Commission wetlands, a bridge will be constructed instead of filling the large area across the upper end of Shamrock Ranch. Filling this canyon to support the approach road would result in permanent impacts to wetlands, the north pond, adjacent uplands and upstream drainages. The avoidance of these wetland impacts is substantial as the fill design would have created permanent impacts to wetlands totaling 43,000 square feet and adjacent buffer zones. A segmented balanced cantilever method will be used to construct the bridge. The bridge piers and abutments, located outside the ESA, would be constructed first and the superstructure between the north and south piers would be advanced by cantilevering out from the piers. Falsework would be used to support the counterbalancing superstructure outside the ESA between the piers and their adjacent north and south abutments.

In order to protect the California red-legged frog population at the north pond during construction, a new pond will be constructed in the horse pasture between the north and south ponds. A detailed proposal describing construction access impacts to the red-legged frog, and the proposed permanent pond has been submitted to the U.S. fish and Wildlife Service (USFWS) as part of a conceptual mitigation plan. The mitigation plan is described fully in the 1999 Biological Assessment prepared for the project and incorporates:

1. *Relocation of the current frog population and egg clusters prior to construction*
2. *Designation of existing red-legged frog habitat as Environmentally Sensitive Areas (ESA);*

3. *Installation of fencing and filtration systems to protect the water quality of the ponds;*
4. *Planting and revegetation of the new pond with species type and plant densities that already occur in the north pond, and are preferred by the red-legged frog for egg cluster attachment;*
5. *Seasonal limitations (May 1 thru October 15) for construction of access roads and pier foundations to reduce erosion potential; and*
6. *Formulation of a water quality assessment plan which will require approval from USFWS, CDFG and National Marine Fisheries Service (NMFS).*
7. *Revegetation of buffer areas temporarily and permanently affected by fill disposal or construction.*

Restoration and Enhancement Measures

Caltrans has developed additional enhancement measures for the north and south ponds to alleviate existing adverse conditions that threaten the resident California red-legged frog population and other sensitive habitat areas. These enhancement measures would compensate for direct/indirect impacts of construction activities such as ground vibration, noise, and general disturbance. A Summary of these measures is provided and also appears in the 1999 Biological Assessment:

1. *Conservation easements will be obtained from Shamrock Ranch for the three ponds to protect the California red-legged frog in perpetuity.*
2. *After project construction, silt will be removed from the north pond, prior to removing the frog barriers and allowing the frogs to return.*
3. *To ensure the successful metamorphosis of any annual red-legged frog larval crop, the north pond will be supplied with a pressurized water line and a heavy duty float valve to prevent it from drying in mid-summer. The shoreline and inshore areas will be planted with a complex indigenous emergent reed, sedge and forb species that will create a permanent pond habitat in which perennial inshore vegetation will continue to grow and provide frog protection.*
4. *The owners of Shamrock Ranch will discontinue the practice of feeding raccoons at a small pit near the north pond to reduce frog predation.*
5. *The koi carp population will be removed from the south pond to eliminate predation on red-legged frog eggs and tadpoles.*
6. *A three year monitoring program to assess and evaluate the effects of the enhancement measures will be implemented.*

7. *The face of the south pond dam will be restored and stabilized to ensure that the habitat functions associated with the pond will continue into the future.*

With these measures being implemented in consultation with the U.S. Fish and Wildlife Service, the Commission finds that the project is not located within an environmentally sensitive habitat area and is therefore consistent with the requirements of Section 30240(a), and, further, that the project is consistent with the requirement of Section 30240(b) that "development in areas adjacent to environmentally sensitive habitat areas ... shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas."

3. Conclusion. To conclude, the Commission finds that the project: (1) is not an allowable use under Section 30233(a)(5); (2) is the least environmentally damaging feasible alternative; (3) provides commitments for mitigation measures to protect wetland and sensitive habitat resources; and (4) is not located within an environmentally sensitive habitat area and, with the avoidance, monitoring, and enhancement measures worked out with the U.S. Fish and Wildlife Service, is consistent with Section 30240. On January 9, 1997, the Commission certified an LCP amendment for this project, finding the tunnel the least environmentally damaging alternative for providing a permanent solution to the road closure problems at Devil's Slide, and that while the project did not qualify as an allowable use pursuant to Section 30233(a), the project presented a conflict between Coastal Act policies addressing wetland and public access. Under Sections 30007.5 (the conflict resolution section of the Coastal Act), the Commission determined that it would be more protective of significant coastal resources to resolve this conflict by approving the project and allowing wetland fill and encroachment near environmentally sensitive habitat areas (with avoidance and mitigation measures).

Given the more detailed design, field work, and alternatives analysis performed by Caltrans submitted with this consistency certification, the Commission reaffirms this conclusion. The Commission also reaffirms its previous conclusion that the previously-authorized bypass along the Martini Creek alignment would have involved several orders of magnitude more extensive wetland fill than the proposed tunnel. (For comparison purposes, based on *Army Corps* wetland definitions⁴ Caltrans estimates the Martini Creek Bypass would have resulted in 28 acres of wetland fill and 14 additional acres of riparian habitat fill, compared to 0.1 acres of wetland fill and 0.2 acres of riparian habitat fill for the proposed tunnel.)

Finally, the Commission notes its conclusions are based on the commitments and information submitted to date, which do not include final detailed mitigation and monitoring plans. Detailed designs and plans will follow and be the subject of the subsequent federal coastal development permit application to San Mateo County (and, possibly, on appeal to the Commission). Further, any modifications to any of these commitments may also trigger the need for additional federal consistency review by the Commission (see discussion, pages 7-8).

⁴ "Army Corps" wetlands were used because "Coastal Act" wetlands were not available for a direct comparison; Coastal Act wetland impacts for the Martini Creek bypass have not been calculated. Aside from this comparison, the remainder of the Commission's wetland analysis is based on Coastal Act wetland definitions.

B. Public Access and Recreation. Sections 30210-30212 of the Coastal Act provide for the maximization of public access and recreation opportunities. Section 30210 provides:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30213 provides:

Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.

The project raises several a number of public access and recreation issues, including: (1) the overriding need for a permanent solution to the geologic stability problems at Devil's Slide in order to maintain the public's ability to continue to achieve access to the significant and numerous public beaches, spectacular tidepools, and other visitor-oriented recreational facilities south of Pacifica on the San Mateo Coastside; (2) the need to assure that any public trails bisected or interrupted by the project are reconfigured to maintain their integrity; (3) the need to assure that construction activities (primarily truck traffic) are scheduled in a manner minimizing adverse impacts during peak recreational periods; and (4) to the extent possible given the geologic instability at Devil's Slide, the maintenance of access along existing Highway 1 across Devil's Slide. The Commission will also consider the project's access and recreation impacts compared to the far more environmentally damaging, previously authorized Martini Creek bypass, which would have bisected McNee Ranch State Park.

1. Overriding Need. In reviewing the Measure T LCP amendment for the tunnel, the Commission found that failure to provide for a permanent solution to the Devil's Slide problem would thwart implementation of the public access provisions of the Act. The Commission noted the many and extended closures of Highway 1 at Devil's Slide that have greatly curtailed recreational use of the northern and central sections of the San Mateo County coastline. The Commission found:

When Highway 1 is closed, travelers to Pacifica, San Francisco and other points north from Half Moon Bay and other locations south of Devil's Slide must crowd onto State Highway 92 and climb over the coastal mountains to Interstate 280 and other roadways heading up the Peninsula (see Exhibit 16). Under such conditions, Highway 92 becomes overloaded, causing delays during peak periods. During the Highway One Closure of 1995-1996, travel times for commonly increased by over an hour each way, and involved a great deal of time inching through dense traffic.

The traffic nightmare greatly impeded the general public's ability to access the coastal area which in turn had a devastating impact on the economy of the San Mateo County MidCoastside. Many visitor-serving establishments and other business were forced to go out of business.

Due to the seriousness of this problem, the Commission concluded that:

The present project presents such a conflict between the public access provisions of the Coastal Act and the wetland fill and habitat protection provisions [and that] this project will promote public access and recreation along the coast, as well as implement the public access and recreation policies of Sections 30210, 30211, 30212, 30212.5, 30213, 30252 and 30254 of the Coastal Act. These benefits will be lost if the project is not approved.

The Commission reiterates these conclusions here, finding that they are still warranted and appropriate.

2. Access Trails. Caltrans states:

The proposed project will ensure continued public access to the coast, although current access at the waters edge is limited due to the steep and rocky terrain below the edge of the highway. The superceded portion of Highway 1 which will be relinquished to the County of San Mateo to own and manage, will continue to provide access to hikers and bicyclists.

Three trails, the California Coastal Trail, the Half-Moon Bay Colma road and the San Pedro Mountain Road are in close proximity to the project ... The Half-Moon Bay Colma Road intersects the tunnel alignment in five locations, and the California Coastal Trail intersects the alignment at the southern portal. These trails connect to existing trails at Grey Whale Cove State Beach, Montara State Beach and McNee Ranch State Park.

South Portal Trail connections

At the south portal, construction will sever the California Coastal Trail at three locations due to excavation for the portal, realignment of Route 1 and construction of the excess material disposal site. Additional design options and grading plans will be investigated to determine if preserving the present trail is feasible. If it is not feasible to avoid impacts, the trail will be reconstructed around the impacted areas to restore continuity and provide continued access to McNee Ranch State Park and the San Pedro Point Headlands.

North Portal [Impacts]

Access to the San Pedro Point Headlands property [to the north of Highway 1 and Shamrock Ranch will not be affected] ... by construction, and physical and operational conditions would be unchanged by the proposed tunnel. Existing public access to established recreation trails including McNee Ranch State Park, Grey Whale Cove State Beach and Montara State Beach will not be impacted by construction of the tunnel alternative.

3. Construction Impacts. Due to the need for some degree of off-site hauling of tunnel spoils, Caltrans' consistency certification includes traffic analysis of construction-related truck traffic on Highway 1 and 92. For the offsite fill, Caltrans estimates a total of up to 15,000 truck trips overall⁵, with off site hauling per day averaging between 50 to 100 trips depending on the stage of construction. Caltrans states:

Initially it is expected that a greater percentage of material will be hauled either to the fill disposal drainage area near the south portal or to the selected off-site location than during the later stages of the project. The tunnel excavation, earthwork and south rock cut are planned in 352 working days (1 year 7 months). If all of the off-site disposal occurs during this time period, average truck trip generation would be 42 trucks per day (tpd). Higher trip generation could occur depending on the location of the disposal site and loading considerations at the excavation areas.

Caltrans calculated changes in the current level of service (LOS) and projected delays based on the highest volumes of peak hour traffic within an 8 hour period of off site hauling, with and without construction traffic (Exhibits 13 & 14). Caltrans assumes that all truck loads of excavated material would be transported to the quarry located on Route 92, south of Devil's Slide (and east of Highway 1). Caltrans states:

The study indicated that delays would increase by about 6 minutes with 300 truck trips/day for the time period between 7:00 am to 3:00 pm. With 100 truck trips/day for the same time period the volume/capacity (V/C) would increase but no significant delays would occur. If hauling occurred between the hours of 8:00 am to 4:00 pm, delays for 100 truck trips/day would be 4 minutes, and 300 trips would increase to 19 minute delays. In order to avoid evening peak rush hour and minimize congestion impacts, off site hauling would have to be terminated by 3:00pm on weekdays.

In order to minimize adverse effects on public access and recreation, Caltrans has committed that off-site disposal would be restricted to non-peak hours, and that non-peak hours includes not only rush hour peaks but also recreational peak periods.

⁵ This number (both the amount of fill and number of truck trips) is subject to reduction downwards; updated information will be provided in an addendum to this report prior to the scheduled hearing for this matter.

4. Bicycles and Access on Existing Highway 1. In order to accommodate bicyclists, which are allowed on existing Highway 1, Caltrans consulted with bicycle groups and San Mateo County to consider bicycle use. In order to accommodate bicyclists, which are allowed on existing Highway 1, Caltrans consulted with bicycle groups and San Mateo County. Caltrans states:

Following much discussion and debate over this issue, Caltrans decided to request that the San Mateo County Board of Supervisors identify their preferred alignment for a bicycle facility associated with the tunnel project.

The San Mateo County Board of Supervisors, in passing Resolution #61060, authorized and directed the President of the Board to notify Caltrans "that the Board's preferred alignment for a bicycle/pedestrian trail be located within the existing Highway 1 Devil's Slide right-of-way, with an alternative alignment around Devil's Slide should it fail". It was decided to incorporate into the project design, the placement of informational/directional signs directing bicyclists to use the existing Highway rather than the tunnel. In the absence of any ban or restrictions (which would need to be initiated by local government), some bicyclists may still choose to ride with vehicular traffic through the tunnel.

Upon completion of the tunnel construction, Caltrans will relinquish the section of existing Highway 1 right-of-way to the County of San Mateo to own and manage. Maintenance and operations of the property and the bicycle/pedestrian trail will then be within the jurisdiction of the County of San Mateo. The County may choose to operate and maintain this facility or arrange for the management or transfer of the facility to an appropriate public recreational agency.

5. Commission Conclusion. Based on the above discussions, the concludes that: (1) there is an overriding need for the project to the extent that the project presents a conflict between the public access and wetland policies of the Coastal Act; (2) with Caltrans' commitments for trail restoration and maintenance plans and construction traffic congestion plans, the project's adverse impacts on public access and recreation will be minimized; (3) the project and the relinquishment of existing Highway 1 to the County have been designed and proposed to maximize bicycle access and other non-motorized forms of access; and (4), as previously noted, from a public recreation perspective the proposed tunnel would be preferable to the far more environmentally damaging, previously-authorized Martini Creek Devil's Slide bypass through McNee Ranch State Park.

As noted in the wetland findings above, the Commission's conclusions are based on the information submitted to date. Detailed minimization and mitigation plans will follow and be the subject of a coastal development permit application to San Mateo County (which could be appealed to the Commission). Further, any modifications to any of these commitments may

also trigger the need for additional federal consistency review by the Commission (see discussion, pages 7-8).

C. Conflict Resolution. Section 30007.5 of the Coastal Act provides:

The Legislature further finds and recognizes that conflicts may occur between one or more policies of the division. The Legislature therefore declares that in carrying out the provisions of this division such conflicts be resolved in a manner which on balance is the most protective of significant coastal resources. In this context, the Legislature declares that broader policies which, for example, serve to concentrate development in close proximity to urban and employment centers may be more protective, overall, than specific wildlife habitat and other similar resource policies.

In reviewing the tunnel under the Measure T LCP amendment, the Commission found:

The Commission finds that this project presents a conflict between competing policies of the Act that requires resolution in conformity with the provisions of Sections 30007.5 and 30200. As determined by the Commission above, this project will promote public access and recreation along the coast, as well as implement the public access and recreation policies of Sections 30210, 30211, 30212, 30212.5, 30213, 30252 and 30254 of the Coastal Act. These benefits will be lost if the project is not approved.

Balanced against these beneficial aspects of the project is the competing fact that the project also will fill wetlands and environmentally sensitive habitat for a use that is not allowed by either Sections 30233 and 30240 of the Coastal Act. However, the impacts of this fill can be mitigated by a wetland replacement and environmentally sensitive habitat restoration program that will be required through the coastal development permit that must be obtained for the project, pursuant to the wetland fill and habitat protection policies of the certified San Mateo County LCP. The Commission also notes that the placement of the fill and the encroachment into environmentally sensitive habitat is the least environmentally damaging feasible alternative.

For these reasons the Commission finds, pursuant to Sections 30007.5 and 30200 of the Coastal Act, that on balance it is more protective of coastal resources to resolve this conflict by approving the project and allowing the proposed wetland fill and encroachment into environmentally sensitive habitat. The Commission therefore finds the project consistent with the Coastal Act in reliance on the conflict resolution provisions of Section 30007.5 and 30200.

Based on the information submitted to date, which provides additional alternatives analysis, habitat minimization, monitoring and avoidance measures, as well as other mitigation measures discussed in this report addressing public access and recreation, scenic public views, and water

quality, the Commission finds these conclusions remain valid and that, based on Section 30007.5 of the Coastal Act, that it would be most protective of significant coastal resources to allow this project to proceed. The Commission therefore concludes that the project is consistent with the Coastal Act.

D. Public Works. Section 30254 of the Coastal Act provides that:

New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway route 1 in rural areas of the coastal zone remain a scenic two-lane road.

This project raises two related "Section 30254" issues: the need to assure that the project is not excessively growth-inducing; and the need to maintain Highway 1 as a scenic 2-lane road in rural areas. In reviewing the Measure T LCP amendment the Commission found that: "The proposed amendment explicitly states the tunnel design "be consistent with ... Coastal Act limits restricting Route 1 to a two-lane scenic highway... Therefore, the Commission finds that the proposed amendment is consistent with Section 30254 of the Coastal Act." The clear intent of Measure T was that the tunnel be designed for two lanes, with the understanding that safety and tunnel standards and considerations could be incorporated into the design. Caltrans considered both a 30 ft. wide tunnel design (the proposed project) and a wider 36 ft. design (with a barrier separating motorized from non-motorized traffic). Concerns were raised at local public hearing on the designs that the 36 ft. designs could more easily be converted to multiple lane tunnels, thus raising both the concerns about inducing growth and maintaining the highway at two lanes. Caltrans therefore abandoned the wider tunnels. The Commission concludes that the safety and non-motorized access features of the proposed tunnel are reasonable and consistent with the intent of Measure T and the requirements of Section 30254 of the Coastal Act, both of which require that the tunnel be designed in a manner restricting Highway 1 to a two-lane scenic highway using minimum state and federal tunnel standards. The Commission also notes that the proposed tunnel is far narrower than the previously-authorized Martini Creek Devil's Slide bypass, which included three continuous lanes throughout the bypass and graded roadway widths of up to 100 ft. (including 30 ft. wide vehicle recovery areas and 49 ft. wide vehicle retention lanes within the graded areas).

E. Public Views. Section 30251 of the Coastal Act provides that:

The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those

designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.

Caltrans states:

North Portal and Bridge Structure. *Initially, two options were considered to span the Shamrock Ranch Valley at the north portal. The fill option, which has been rejected, would split the disposal areas for excavated material between the north and south portal. The visual and environmental impacts of the fill option were significantly greater than those associated with the bridge option, and several ponds located in the valley would have been filled.*

The north portal location was selected to minimize excavation and visual impacts on nearby Pacifica homes, and to minimize the overall length of the tunnel. This was done by carefully locating the alignment in a small ravine in the north portal area, and minimizing the height of the cut into the higher western ridge, while maximizing the cut into the lower eastern ridge that borders the ravine. Based on geologic evaluations of the rock mass conditions to be exposed by the portal excavation, a slope inclination of one horizontal to one vertical (1h:1v) was selected. The maximum height of excavation is expected to be about 180 feet.⁶

With this option there is an opportunity for motorists and residents of Shamrock Ranch, equestrians, and bicyclists to see from certain viewpoints under or through the spaces between the bridge piers. The proposed bridge selected for the approach to the north portal will consist of 3 spans, approximately 320 meters (1,050 ft) in length. The deck of the bridge would be placed approximately 36.6 meters (120') above the valley floor. Views of the bridge would be insignificant for hillside residents of Pacifica. The bridge will not be visible from the Linda Mar-San Pedro Valley, with the existing vegetation and viewpoint angle.

Impacts. *The bridge that will span the Shamrock Ranch Valley to avoid impacts to wetlands and riparian habitat, and connect Highway 1 with the north portal. It will create a negative visual impact on this small valley which currently enjoys minimal intrusion from development. While the bridge structure is not visually compatible with the character of the surrounding area, it is the least environmentally damaging option to cross the Shamrock Ranch valley. Trees and hillside vegetation will be cleared and grubbed for construction of the tunnel portal and approach road resulting in some contrast between the chaparral blanketed hillsides.*

⁶ Devil's Slide Tunnel Study Feasibility Report, Woodward-Clyde-1996

Mitigation. *Mitigation measures to minimize these visual impacts would include aesthetic design options that integrate form, pattern, color, texture and structural elements with the design. Standard monolithic concrete structures with no form, pattern or articulation would not provide adequate mitigation for this impact.*

North Portal Façade/Impacts. *The north portal facade presents a structure sited on a heavily vegetated hillside that would be visible for a short duration to motorists and bicyclists. An access road and water tank will also be visible from long range views resulting in a negative visual impact.*

Mitigation. *Planned mitigation includes architectural treatment for the tunnel portal to create a cohesive design that blends with the environment. Screening and vegetation would be used to mitigate the water tank, and a suitable surface material will be placed on the access road. The horizontal alignment for the north portal has been developed to minimize its visual impact by locating the tunnel portal within a recess in the side of the hill.*

South Portal. *Travelling north on route 1 towards the south portal area, the view is dominated on the eastern side of the highway by rolling green hillsides as they slope towards the ocean. ...*

The horizontal alignment for the south portal includes a 259 meter (850') radius curve shaving off the face of a large rock precipice located to the east of the alignment. This alignment will provide a 131 meter (430') clear stopping sight distance at the base of this rock cut. In addition to the portal, the area includes the south disposal site, which would receive all of the excavated material from the tunnel construction. Adjacent to the disposal site, an operations and maintenance center (OMC) will be constructed which includes a building and heavy equipment yard. This facility will be located on the east side of the highway, and views of it will be shielded from the highway by earth berms. Some drainage facilities will be visible from the highway.

Impacts. *The rock cut will present a visual change to the area, expanding a feature which is already present. No long term exposure of this area would be experienced by residents, as there are none within the sight-line of the south disposal site. Motorists travelling northbound on route 1 would view the greatest change to the south portal area.*

Mitigation. *This visual change would be mitigated with contour grading to blend the form of the fill area in to the existing surroundings of rolling hills. Revegetation would minimize visual impacts. The South Portal location was selected at a rock nose between Route 1 and a small drainage channel just south of Devil's Slide. This location provides minimal but acceptable side cover between the tunnel and the cliff face east of Route 1, adequate space between the tunnels for the double bore configuration, avoids the environmentally sensitive stream channel to the east, and*

provides adequate depth of good quality rock above the tunnel portal. The maximum height of the excavation is expected to be about 240 feet. This portal location will have a sufficient work area to avoid serious traffic impacts during construction.

South disposal Site/Impacts. *The south disposal site would receive an estimated [574,000 cubic meters] ... of excavated material creating a hill with 2:1 slopes, 180 meters (590') in diameter and reaching 90 meters (295') in height. This visual impact would be considered negative unless revegetation could successfully blend the fill into existing landforms. Mid-ground views would be the most affected, as well as the foreground view for motorists. Background views would be obstructed by topography from the road for motorists, but would be visible to recreational and commercial vessels.*

Mitigation. *There are no residents at the south portal, so long term exposure of this view is not an issue. Contouring the fill shape to transition gradually into the disposal site would aid in blending the appearance of the material. Revegetation with native plants would be called for to mitigate the appearance of the fill. Revegetation would take several years before complete cover would be achieved.*

Caltrans states that the project is consistent with the visual resources component of the Coastal Act, "... in that design options and treatments will be visually compatible with the existing geology and vegetation, and initial visual impacts will be temporary in nature." Caltrans notes that: "Although landforms will be altered at several locations, revegetation, contouring and aesthetic treatments will be applied to restore their character." The Commission notes the historic difficulty in revegetating steep cut slopes in the project area in general; Caltrans will need to be persistent in order to succeed in revegetating this fill area. The Commission nevertheless finds that Caltrans has incorporated project modifications to minimize adverse visual impacts on scenic coastal views, primarily in the north portal area, and, to the best of its ability, will revegetation plans to minimize adverse effects on the predominantly natural character of the scenic hillsides in the south portal fill disposal area. The Commission also notes that the proposed tunnel would have profoundly less adverse impact on scenic public coastal views than the previously-authorized Martini Creek Devil's Slide bypass, which included 5.9 million cubic yards (4.9 million cubic meters) of grading throughout McNee Ranch State Park and surrounding areas, including extensive grading at much higher elevations that would be seen for tens of miles from either north or south of the bypass. The Commission therefore concludes that the project is consistent with the requirements of Section 30251 of the Coastal Act.

As noted in the previous sections above, the Commission's conclusions are based on the information submitted to date. Detailed bridge, approach road, and revegetation plans will follow and be the subject of a coastal development permit (which could be appealed). Further, any design changes or modifications to any of these commitments may also trigger the need for additional federal consistency review by the Commission (see discussion, pages 7-8).

F. Water Quality. Section 30231 of the Coastal Act provides:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

Caltrans will incorporate measures into the project to protect water quality in the area. Caltrans states:

Among the requirements that apply on a project-by-project basis, is the consideration of Permanent Control Measures (PCM) to eliminate or minimize the discharge of pollutants associated with the new facility. The project design phase includes a process to determine the need for PCMs. The process provides a framework for documenting the selection and/or rejection of PCMs prior to completion of final design for the chosen alternative.

Impacts

Long-term and construction related water quality impacts will be better identified during the pre-construction process. Potential erosion impacts in the project vicinity of either alternative due to excavation and potential non-storm water discharges that could occur during construction activities would be addressed by the standard implementation of erosion and sediment control practices both during and after construction.

Construction-related Impacts

Non-storm water discharges include all liquids used by the contractor that have the potential to be discharged, either accidentally (spills) or as part of the construction process. Although these types of discharges are most likely to be small quantities, they have the potential to adversely impact receiving water quality in a localized area. Therefore, they would be managed accordingly with an appropriate Storm Water Pollution Prevention Plan (SWPPP).

Mitigation Measures

Caltrans mitigation measures include those that will be required during construction of the project, as well as measures that consider long term benefits. Mitigation during construction is implemented through the SWPPP, which is a two-step process. The

conceptual SWPPP, which is prepared during design of the project will identify control measures and Best Management Practices (BMP) that may be implemented.

These BMPs can include:

- a) Erosion and sediment control plans that incorporate vegetative stabilization such as seeding, planting and mulching.*
- b) Physical stabilization using geotextiles and mats, dust control implementation measures and temporary stream crossings and the stabilization of access roads and construction staging areas.*
- c) Diversion of run-off using earth dikes, temporary drains and swales, and slope drains and also measures to reduce run-off such as slope terracing/roughing and check dams.*
- d) Trapping and filtering of runoff may be accomplished by the construction of silt fencing, straw bale barriers, brush and rock filters, sediment traps and basins, infiltration basins and trenches, and detention ponds.*

Prior to the beginning of any construction activities, the SWPPP must be complete and in compliance with any applicable permits. A Storm Water Pollution Prevention Plan (SWPPP) Checklist is used by the Resident Engineer to verify that all required sections of the plan have been completed, and whether each item has been adequately addressed.

The final SWPPP will be prepared by the contractor after the contract has been awarded and the field condition have been identified. The final SWPPP is based on the conceptual SWPPP prepared during the design process and addresses those BMPs and control measures related to special site conditions and construction staging.

Long-term Mitigation

Caltrans long-term mitigation measures involves the evaluation of potential adverse impacts that the operation of the new facility may have on receiving water quality. The evaluation process considers all aspects of the project, and determines the need for the inclusion of permanent control measures (PCM) into the design of the project as previously described. The process also provides for the evaluation of available PCMs and the feasibility of their use in the projects.

The Commission finds that inclusion of the above-discussed measures will be necessary to protect coastal water quality in the project area. The Commission also notes that the proposed tunnel would have significantly less adverse impact on water quality than the previously-authorized Martini Creek Devil's Slide bypass, which included 5.9 million cubic yards of

grading affecting numerous watersheds throughout McNee Ranch State Park and surrounding areas. In reviewing the Measure T LCP amendment, the Commission noted that, by constructing a roadway through San Pedro Mountain rather than over the top of the mountain, the tunnel would avoid contributing sediment and contaminant-laden runoff into the watersheds within the state park, and that drainage from the tunnel and its approaches would discharge at relatively low elevations near the ocean into streams located either completely outside of the park watersheds or along the edges of the park near the ocean. The Commission concludes that, with the commitment to implement the above water quality protection measures, the project would be consistent with Section 30231 of the Coastal Act.

As noted in the previous sections above, the Commission's conclusions are based on the information submitted to date. Detailed water quality construction and operations plans will follow and be the subject of a coastal development permit to San Mateo County (which could be appealed to the Commission). Further, any modifications to any of these commitments may also trigger the need for additional federal consistency review by the Commission (see discussion, pages 7-8).

SUBSTANTIVE FILE DOCUMENTS:

1. San Mateo County LCP Amendment No. 1-96, ("Measure T," the Devil's Slide Tunnel Initiative).
2. Draft Second Supplemental Environmental Impact Statement for the Devil's Slide Tunnel.
3. "The Devil's Slide Tunnel Study," Woodward-Clyde Consultants, 1996.
4. Addendum to the Devil's Slide Dewatering Feasibility Study," Caltrans, June 2000.
5. Preliminary Coastal Zone Wetland Delineation, State Route 1 Devil's Slide Bypass Project, Caltrans, June 15, 2000.
6. Draft Supplemental Environmental Impact Statement (DSSEIS) for the proposed Devil's Slide Improvement Project, March 19, 1995.
7. Draft Second Supplemental Environmental Impact Statement (DSSEIS) for the proposed Devil's Slide Improvement Project, March 1999.
8. San Mateo County LCP Amendments No. 1-85 and 2-85, Devil's Slide bypass ("Adopted" alignment bypass).
9. Consistency Certification CC-45-85, Caltrans, Devil's Slide bypass (Martini Creek bypass)
10. Consistency Certification CC-64-99. San Diego Metropolitan Transit Development Board, mid-coast light-rail extension, San Diego.

CALIFORNIA COASTAL COMMISSION

45 FREMONT STREET, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200



Tu 12 a

Addendum

Date: September 26, 2000

To: Commissioners and Interested Persons

From: Peter Douglas, Executive Director
Mark Delaplaine, Federal Consistency Staff

Subject: Consistency Certification CC-94-00
CC-94-00, Caltrans, Devil's Slide Tunnel

As noted in the staff recommendation mailed for the October 10, 2000, Commission meeting, the amount of offsite disposal was subject to revision (p. 23, footnote). Caltrans has modified the proposal to reduce the amount of tunnel spoils to be trucked offsite from approximately 150,000 cu. meters, to 50,000 cu. meters (and with the additional material proposed to be added to the south disposal area (bringing that total to 674,000 cubic meters)). The total volume remains the same. The attachments depict the proposed new disposal configuration (a grading plan, and photo simulations of the fill at the south disposal area).

This change will fully screen the proposed operations building from view, and, by cutting offsite disposal in third, will significantly reduce the number of trucks on Highway 1 and 92, thereby benefiting public access and recreation. This change does not alter the fundamental conclusions in the staff recommendation concerning the project's consistency with the Coastal Act.

Also attached is correspondence received on the project from the Save Our Bay Foundation.